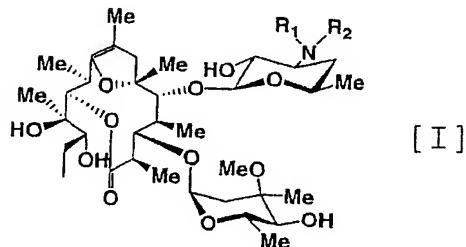


Claims

1. A pseudoerythromycin derivative represented by the formula [I],



wherein R₁ and R₂ are same or different and each represents H, alkyl, alkynyl, acyl, or sulfonyl, in which these groups may optionally have substituents, and Me indicates methyl, wherein R₁ is Me or I-Pr, R₂ is not H.

2. A compound according to claim 1 which is bis-de(3'-N-methyl)-8, 9-anhydro-pseudoerythromycin A 6, 9-hemiketal or salt thereof.

3. A compound according to claim 1 which is bis-de(3'-N-methyl)-3'-N-ethyl-8, 9-anhydro-pseudoerythromycin A 6, 9-hemiketal or salt thereof.

4. A compound according to claim 1 which is bis-de(3'-N-methyl)-3', 3'-N, N-diethyl-8, 9-anhydro-pseudoerythromycin A 6, 9-hemiketal or salt thereof.

5. A compound according to claim 1 which is bis-de(3'-N-methyl)-3'-N-propyl-8, 9-anhydro-pseudoerythromycin A 6, 9-hemiketal or salt thereof.

6. A compound according to claim 1 which is bis-de(3'-N-methyl)-3', 3'-N, N-dipropyl-8, 9-anhydro-pseudoerythromycin A 6, 9-hemiketal or salt thereof.

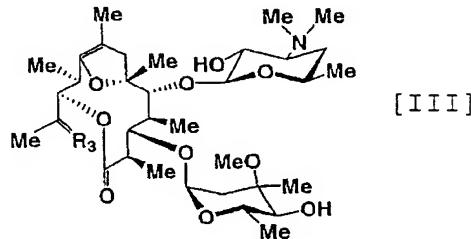
7. A compound according to claim 1 which is bis-de(3'-N-methyl)-3'-N-(2-propyl)-8, 9-anhydro-pseudoerythromycin A 6, 9-hemiketal or salt thereof.

8. The derivative according to claim 1 wherein the compound represented by the general formula [I] has promoting action for differentiation-induction from monocyte to macrophage.

9. The derivative according to claim 1 wherein the compound represented by the general formula [I] has a suppressive effect against bleomycin-induced pulmonary fibrosis.

10. The derivative according to claim 1 wherein the compound represented by the general formula [I] has suppressive effect against pneumonia caused by influenza viral infection.

11. A pseudoerythromycin derivative represented by the formula [III],



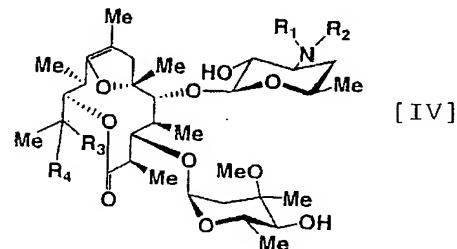
wherein R₃ is O or NOH, and Me indicates methyl.

12. The derivative according to claim 11 wherein the compound represented by the general formula [III] has promoting action for differentiation-induction from monocyte to macrophage.

13. The derivative according to claim 11 wherein the compound represented by the general formula [III] has a suppressive effect against bleomycin-induced pulmonary fibrosis.

14. The derivative according to claim 11 wherein the compound represented by the general formula [III] has suppressive effect against pneumonia caused by influenza viral infection.

15. A pseudoerythromycin derivative represented by the formula [IV],



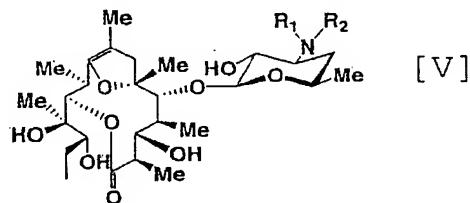
wherein R₁ and R₂ are same or different and each represents H or methyl, R₃ and R₄ represent H, hydroxyl or amino, and Me indicates methyl.

16. The derivative according to claim 15 wherein the compound represented by the general formula [IV] has promoting action for differentiation-induction from monocyte to macrophage.

17. The derivative according to claim 15 wherein the compound represented by the general formula [IV] has a suppressive effect against bleomycin-induced pulmonary fibrosis.

18. The derivative according to claim 15 wherein the compound represented by the general formula [IV] has suppressive effect against pneumonia caused by influenza viral infection.

19. A pseudoerythromycin derivative represented by the formula [V],



wherein R₁ and R₂ are same or different and each represents H or methyl, and Me indicates methyl.

20. The derivative according to claim 19 wherein the compound represented by the general formula [V] has promoting action for differentiation-induction from monocyte to macrophage.

21. The derivative according to claim 19 wherein the compound represented by the general formula [V] has a suppressive effect against bleomycin-induced pulmonary fibrosis.

22. The derivative according to claim 19 wherein the compound represented by the general formula [V] has suppressive effect against pneumonia caused by influenza viral infection.